

NEWS LETTER OF THE SOCIETY OF AMERICAN BACTERIOLOGISTS

Office of the Secretary-Treasurer

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1946 OFFICERS AND COUNCILORS

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G. L. Stahly, Columbus, Ohio--Ohio
W. F. Verwey, Glenolden, Pa.--Eastern Pennsylvania
K. L. Burdon, Houston, Texas--Texas
Ida Bengtson, Linden, Va.--Washington (D.C.)

Invited Members, by Council Action of 1938:

Barnett Cohen, Editor-in-Chief, BACTERIOLOGICAL REVIEWS
A. P. Hitchens, Editor, Section C, BIOLOGICAL ABSTRACTS
L. S. McClung, Chairman, PROGRAM COMMITTEE
J. M. Sherman, Editor-in-Chief, JOURNAL OF BACTERIOLOGY

THE 1946 ANNUAL MEETING IN DETROIT

Enclosed with this News Letter is a Hotel Reservation card. As soon as you have made definite plans to attend the annual meeting please fill out and mail in your card. The Detroit Local Chairman in charge of hotel reservations will make every effort to obtain the accommodations you indicate. The dates are May 21, 22, 23 and 24 and for Councilors, May 20. Please reserve promptly and accurately. Hotel facilities are still at a premium and every help the membership can give Dr. Ackley's committee will be appreciated. If you are compelled to reserve late every effort will be made to give you what you want but in such an event the committee may have to assign a second or third choice. Note that rooms cannot be held beyond date of reservation. There are more double rooms than single so that if you plan to share your room give details to Dr. Ackley. A limited number of graduate students can be accommodated at \$1.00 per night (must be certified).

REPORT OF THE COMMITTEE OF TELLERS

In 1945 President Mudd appointed Dr. Sara Branham, Dr. R. P. Tittsler and Dr. Margaret Pittman as members of the Teller's Committee to count the ballots submitted in the 1945 election. Chairman Branham reports that the following were elected:

President:	James Craigie
Vice President:	Thomas Francis, Jr.
Secretary-Treasurer:	L. W. Parr
Councilors-at-Large:	M. J. Rosenau Frederick Smith
Honorary member:	Sir Alexander Fleming
Corresponding members:	Sir Howard W. Florey Dr. A. A. Smorodintsev

THE ELI LILLY AND COMPANY AWARD IN BACTERIOLOGY AND IMMUNOLOGY

Members of the Society are reminded that nominations of young scientists for the 1946 Eli Lilly and Company award must be in the hands of the nominating committee by February 15, 1946. (See July, 1945 News Letter) The chairman of this committee is John G. Kidd, M.D., Cornell University Medical School, 1300 York Avenue, New York City. The award consists of a medal, a check for \$1000 and expenses to the annual meeting. It is, furthermore, an outstanding recognition. It is the desire of the Society of American Bacteriologists, the American Society for Experimental Pathology, and the American Association of Immunologists, the three cooperating societies, that no worthy young scientist be overlooked in deciding upon this annual award.

COMMITTEE ON MATERIALS FOR VISUAL INSTRUCTION IN MICROBIOLOGY

The following motion picture films have been reviewed under the auspices of the Committee. Abstracts of the films are available at the rate of 3 cents per abstract from the Chairman of the Committee (Dr. Harry E. Morton, University, Pennsylvania).

<u>Number of</u> <u>Abstract</u>	<u>Title of Film</u>	<u>Length</u>	<u>Production date</u>
119	Poliomyelitis. B&W, So.	600	1944
120	Magic Bullets. (Chemotherapy). B&W, So.	1200	1940, 1944
121	The Ominous Arms case. (Water-borne diseases). B&W, So.	1200	?
122	Health and the cycle of water. B&W, So.	800	1941
123	Life cycle of <u>Trichinella spiralis</u> . Co, Si.	250	?
124	Using the classroom film. B&W, So.	800	1945

The following lantern slides are available by purchase or rental in either the 3 1/4 x 4 or 2 by 2 inch sizes. Black and white prints up to 8 x 10 inches are available by purchase,

Lantern

slide no.

Subject

- LS-126 Photograph of crystals of gramicidin.
LS-127 Photograph of crystals of tyrocidine HCL.
LS-128 Photograph of crystals of sodium salt of penicillin G.
LS-129 Photograph of diagram of endocervical glands.
LS-130 Photograph of diagram showing cleansing of cervical canal.
LS-131 Photograph of diagram illustrating collection of material from cervical canal.
LS-132 Photograph of diagram of Skene's glands.
LS-133 Photograph of diagram illustrating collection of material from Skene's glands.
LS-134 Photograph of diagram illustrating collection of material from Bartholin's glands.
LS-135 Electron micrograph of tobacco mosaic virus shadowed with gold.
LS-136 Electron micrograph of influenza A virus shadowed with chromium.

DETROIT CONVENTION PLANS

The members have been informed previously that the days for the Detroit meeting would be Tuesday, May 21 through the afternoon of Friday, May 24. It is expected that the scientific sessions will start in the early afternoon of May 21 and that the council will have a meeting on the evening of May 20. Members should note the final deadline for the acceptance of abstracts for this meeting will be Monday, March 4, 1946. The printing schedule for the program and the preprint containing the abstracts will make it impossible to accept abstracts which are received later than March 4. In view of the expected competition for space in this program, it is suggested that members should submit their abstracts as early as possible after February 1, 1946 in order that the committee will have sufficient time to assemble the material for the program.

The present plans of the committee include addresses by two speakers of outstanding importance in addition to the papers submitted by the members. Evening round table group discussions are being organized. It is possible that we will be able to resume, for this meeting, some of the excursions and other similar items which were not possible during the war. The cordial atmosphere of Detroit is amply reflected in the enthusiasm of the local committee. Members of the Society will look forward with pleasure to the meeting in Detroit and should make their plans to attend. It should be remembered that hotel accommodations continue to be scarce and therefore, the room reservation cards included with the News Letter should be returned at the earliest possible date. Those who do make room reservations should realize that accommodations are scarce and therefore should make every effort to arrive at the stated time and not to expect the reservations to be held. Those who do not reserve rooms in advance will likely find that accommodations will be almost impossible to obtain. If each person will do his share of cooperation in this matter, we will be able to accommodate the crowd.

-Dr. L. S. McClung, Chairman of Program Committee,
Bacteriology Office, Indiana University, Bloomington.

ATTENTION OF AUTHORS

By action of the Council of the Society of American Bacteriologists the following regulations governing the program are in force. See Articles 5 - 9 of the By-Laws.

Any member of the Society may submit a title for the program. No title will be accepted unless it is accompanied by an abstract. At least one of the authors of a paper must be a member of the Society, unless the paper is presented by special invitation of the Program Committee. It is expected that the person who presents the paper, including jointly authored papers will be a member of the Society. Exceptions to this rule should be referred to the Program Committee. A title is to be sent in only when the author has the intention of presenting the paper. An exception may be made in the case of members in foreign countries. Once a paper has been accepted, it cannot be withdrawn. Normally, only a single paper is to be submitted by a member.

Publication of abstracts. The abstracts will be preprinted for the General Meeting and published in the May number of the JOURNAL OF BACTERIOLOGY. Please use the official blank which was distributed with the January 1945 News Letter. When it became known that the 1945 meeting could not be held members were notified and asked to file their triplicate abstract blanks for 1946. If you do not have copies of these blanks write to the Secretary-Treasurer or to the Chairman of the Program Committee for copies. Typewrite plainly since this is copy for the printer. Observe margins and double space between lines. Use an additional sheet if necessary. Two carbon copies in addition to the original sheet must be submitted. (White, blue and yellow sheets furnished) Please submit clear carbon copies rather than additional original copies. Prepare the abstract so that it is ready for final publication. Corrections of preprinted abstracts will be permitted only when misprints occur or when editorial changes are not acceptable to the author. These corrections must be in the hands of the Chairman of the Program Committee by noon of the second day of the meetings.

Length of abstracts. The text of the abstract must not exceed 250 words. Longer abstracts will be shortened by the Chairman of the Program Committee when time does not permit returning an abstract to the author.

Contents of abstracts. An abstract should contain a succinct statement of (1) the problem under investigation, (2) the experimental method used, and (3) the essential results obtained. Tables or figures will not be permitted. The scientific names of organisms must be spelled out in full and underscored once, thus Eberthella typhosa. The subject matter of the abstract must not have been published elsewhere. Consult the May, 1944 issue of the JOURNAL OF BACTERIOLOGY for guidance on questions of form which must be in accordance with the editorial policies of the JOURNAL (See pages 695-697 of Volume 42, 1941).

Presentation of papers. The maximum time, which the person presiding at a session will allow for the presentation of a paper, is 10 minutes unless an extension of time has been granted by the Program Committee in which case the maximum time will be printed in the program. Authors should practice reading their papers to insure a clear delivery within the time allowed.

All authors are cautioned to prepare their papers carefully in accordance with the following suggestions: The title should sufficiently indicate the

content or particular phase of the topic to be discussed. The opening paragraph of the paper should orient the audience as to the nature and purpose of the research to be reported. A brief historical statement may be needed, but time will not permit a detailed historical review. The experimental method employed should be mentioned, but details are usually unnecessary--those who are interested will ask for them in the discussion or will inquire privately of the speaker. The majority of the time should be devoted to a statement of the results. Care should be exercised that the results are stated simply and with such clarity that the audience can grasp readily the significant facts. The conclusions should contain a clear summary of the essential points in the results which the author believes have been proved or disproved by the experimental data. If possible, a few, but not too many, tables and diagrams should be included in the discussion of the results to serve as visual aids. Be particularly careful that lantern slides are so made that the persons in the back of a large room may see the details clearly. It should be remembered that this is not true of slides prepared from typewritten tables. Much clearer slides will result if these tables are prepared by hand on large sheets and photographically reduced. All authors should project their slides, before they leave their home institution, in a room with seating capacity for 300 persons. If the figures on the slide are not clear from the back row of such a room the slide should not be used in the final paper.

Apparatus and exhibits. When an author intends to use any sort of projection apparatus, or requires any special arrangements for the presentation of his paper the Program Committee should be so notified at the time the abstract is submitted, in order that suitable arrangements may be made. Nitrate or other inflammable motion picture film will not be permitted. Persons requiring the use of motion picture apparatus should state the size of the film.

Questions relating to Exhibits should be referred to Local Committee Exhibit Chairman:

Dr. Joseph Casper, Bureau of Health Laboratory, Herman Kiefer Hospital,
Detroit 2, Michigan

The headquarters hotel is the Book-Cadillac.

Important notice.- Abstract deadline. To be included in the Program abstracts must be received by the chairman of the Program Committee on or before March 4, 1946. Earlier submission of abstracts will be appreciated greatly. In view of the expected competition for space on the program it would be advisable to submit abstracts as soon as possible after February 1, 1946. Authors are cautioned to expect delay in the mails and to make due allowance for this in submitting material.

Mail all abstracts to:

Dr. L. S. McClung, Chairman, Program Committee, Bacteriology Office,
420 Kirkwood Hall, Indiana University, Bloomington, Indiana

ALUMNI MEETINGS AT DETROIT

It is probable that the Detroit Committee on arrangements for the May Annual Meeting may be able to arrange standard priced luncheons or breakfasts for alumni groups. Those who desire to make such reservations should contact the

Chairman of the Program Committee at once. An attempt will be made to list each such group in the program of the meeting and also those which are arranged earlier will be scheduled to avoid conflict with other events. The cost will be kept as low as possible.

SCIENCE LEGISLATION

Cards asking the approval of the membership as regards the Society "Report" on Science Legislation were enclosed with the October 1945 News Letter. Cards were returned by 699 members entitled to express themselves on legislative matters in the United States. To their credit a few members registered their disagreement with the procedure either by marking the card to indicate a negative vote or by writing us personally. A great majority of the members favored the Report. Unfortunately the matter of science legislation is not yet settled. Neither the Magnuson nor the Kilgore bills have been passed. A new bill has been introduced, S.1720, which may help the situation.

LOCAL BRANCH NEWS

The following new Councilors have been elected by their Local Branches to the Council of the Society:

H. W. Cromwell, North Chicago, Illinois.--Illinois
J. B. Rehm, St. Louis, Missouri--Eastern Missouri
N. P. Sherwood, Lawrence, Kansas--Missouri Valley
W. F. Verwey, Glenolden, Pa.--Eastern Pennsylvania
K. L. Burdon, Houston, Texas--Texas

Southern California Branch (Roy T. Fisk, Secretary)

Meeting held October 30 at the University of Southern California. Officers elected for the coming year: A. J. Salle, Chairman; R. T. Fisk, Vice-Chairman; W. W. Smith, Secretary-Treasurer; C. E. ZoBell, Local Councilor. Program:

- 1.- Preliminary observations on subtilin--an antibiotic produced by Bacillus subtilis, by A. J. Salle, University of California at Los Angeles.
- 2.- Assay of penicillin in blood, by R. E. Hoyt, Laura J. Collins; and M. G. Levine, Institute of Experimental Medicine, College of Medical Evangelists.
- 3.- A factor influencing the sedimentation rate of red blood cells, by M. G. Levine and R. E. Hoyt (vide ut supra).
- 4.- Anaheim Research Laboratory, Union Oil Company of California--Insecticide and Fungicide Research Project, by Douglas Warner, Union Oil Company Research Laboratory.

Society of Illinois Bacteriologists (H. W. Cromwell, Secretary-Treasurer)

Fall Meeting held Friday, November 16, at 310 South Michigan Avenue, Chicago. Following dinner at 6:30 P.M. the following program was given:

- 1.- Production and dehydration of baker's yeast, by H. J. Gorgia, Northwestern Yeast Company.

- 2.- Studies on irradiated polyvalent bacillary dysentery vaccine, by H. J. Shaughnessy, Albert Milzer, John Neal, and S. O. Levinson, Illinois Department of Public Health and Samuel Deutsch Serum Center.
- 3.- Effect of chemotherapy on the development of immunity, by P. E. Harrison, University of Chicago.
- 4.- Occurrence of psittacosis-like viruses in Chicago pigeons, by Joseph Zichis, Catherine Lemke, and H. J. Shaughnessy, Illinois Department of Public Health.
- 5.- Culture cycle of virulent human type tubercle bacilli, by G. P. Youmans, Northwestern University Medical School.

Indiana Branch (Robert F. Ervin, Secretary-Treasurer)

At the October Meeting (See News Letter, October 1945) the following officers were elected for 1946: H. M. Powell, President; J. A. Reyniers, Vice President; Secretary-Treasurer, R. F. Ervin; Director, C. G. Culbertson.

The next meeting of the Branch is scheduled for February 8, 1946.

Kentucky-Tennessee Branch (James C. Humphries, Secretary-Treasurer)

The regular fall meeting was held at the U.S.P.H.S. Hospital in Lexington November 10 and the following program was given:

- 1.- Some observations on the control of fowl typhoid infection with sulfa drugs, by Frank Holtman and Gladys Fisher, University of Tennessee.
- 2.- Studies on complement fixation technique with mycological material, by Margaret Hotchkiss, University of Kentucky.
- 3.- Drug addiction, by J. D. Reichard, U.S.P.H.S. Hospital.
- 4.- Submerged culture of molds for amylase production, by Floyd Stewart, R. E. Scalf, and W. H. Stark, Joseph E. Seagram and Sons.
- 5.- Disinfection of distillers' barley malt by chemical agents, by A. A. Andreasen, E. W. Ruf, and W. H. Stark (v.s.).
- 6.- Continuous alcoholic fermentation of acid hydrolyzed grain mash, by E. W. Ruf, W. H. Stark, and L. A. Smith(v.s.).

Michigan Branch (Elizabeth J. Cope, Secretary-Treasurer)

A meeting of the Michigan Branch Society of American Bacteriologists was held November 16 in the auditorium of the Herman Kiefer Hospital, Detroit. The program:

- 1.- Testing disinfectants for use on skin of sheep, by J. O. Tiner, Frank Thorp, Jr., and C. L. Cole, Michigan State College.
- 2.- Some observations in the study of false Kahn reactions, by J. A. Kasper, Detroit Department of Health.
- 3.- Gonococcus culture; comparison of results with mailed slants and immediate plates, by Grace Eldering and Evelyn Palser, Michigan Department of Health, Grand Rapids.
- 4.- Report of the first meeting of the International American Typhus Commission, by Fred Stimpert, Parke Davis and Company.
- 5.- A germicidal factor present in gastric secretions of certain animals including man, by Ada May Ames, Wave Culver, and W. J. Nungester, University of Michigan.

Eastern Missouri Branch (Grace McCrary, Secretary)

Meeting held November 6, at Washington University. Officers elected for the coming year: R. O. Muether, President; John Doubly, Vice President; Grace

McCrary, Secretary-Treasurer; Councilor, J. B. Rehm.

Program:

- 1.- The serological identification of a Salmonella culture, by Captain R. A. McCreedy, M. C., Jefferson Barracks.
- 2.- Public health aspects of the control of some insect vectors, by H. E. Whitmire.

Missouri Valley Branch (Charles A. Hunter, Secretary-Treasurer)

The annual meeting of the Missouri Valley Branch was held November 30 and December 1 in the city auditorium, Topeka, Kansas. The following officers were elected: G. L. Peltier, President; E. Lee Treece, Vice President; Charles A. Hunter, Secretary-Treasurer; N. P. Sherwood, Councilor. The program:

- 1.- Mode of action of marfanil, by Dan Tenenberg, University of Kansas.
- 2.- The use of selective enrichment media for the isolation of enterococci, by L. F. Lindgren, University of Nebraska.
- 3.- Agglutinin responses to the O and OH antigens of typhoid vaccine administered orally to rabbits, by W. H. Baker and J. R. Wells, Kansas State Teachers College.
- 4.- Some fungi involved in the decomposition of plant residues, by R. C. Dawson, University of Nebraska.
- 5.- A comparison of various egg media for the routine isolation of Mycobacterium tuberculosis, by Eleanore Herndon and C. A. Hunter, Kansas State Board of Health.
- 6.- The inhibition of bacterial respiration by crystal violet and its relationship to Gram's stain theory, by John Harris, Kansas State College.
- 7.- Experimental studies in leptospirosis. I. Preliminary report on the experimental therapy of leptospirosis, by B. S. Levine and C. A. Hunter, Kansas State Board of Health.
- 8.- Western equine encephalitis, by C. M. Eklund, U.S.P.H.S., Kansas City, Kan.
- 9.- Survival of Pasturella tularensis in water, by Cora Downs, University of Kansas.
- 10.- Influence of some microbial group on soil structure stability, by T. M. McCalla, University of Nebraska.
- 11.- Further studies on listerellosis in rabbits, by Barbara Russell and N. P. Sherwood, University of Kansas.
- 12.- Vitamin A in mastitis, by V. D. Foltz, Kansas State College.
- 13.- Geographical distribution of histoplasmin sensitivity (Banquet address), by M. L. Furcolow, U.S.P.H.S., Kansas City, Kansas.

New York City Branch (John E. Blair, Secretary-Treasurer)

The following officers have been elected for 1946: Gustav Steffen, President; Ward MacNeal, Vice President. Two meetings are reported. October 17, a joint meeting with the Public Health Association of New York Lennox Hill Hospital:

- 1.- Recent advances in the diagnosis and prevention of rickettsial diseases, by J. P. Fox, International Health Division, Rockefeller Foundation.
- 2.- Measurement of the effects of war on the general health, by Ernest Stebbins, Commissioner of Health of New York City.

On December 27, the local branch held its annual Christmas meeting at the George Washington Hotel:

- 1.- Vitamin requirements of the photosynthetic purple bacteria, by S. H. Hutner, Haskins Laboratories.
- 2.- Studies on bacterial mutability: the time of appearance of the mutant, by Stephen Zamenhof.
- 3.- Application of new bacteriologic methods to the study and control of staphylococcus food poisoning outbreaks, by George Chapman and Emil Domingo, Clinical Research Laboratory.
- 4.- A microbiological method for the determination of tyrosine in proteins and foods, by Marion Gunness, Irla Dwyer, and J. L. Stokes, Merck and Company.
- 5.- The lack of preservative action of surface active cationic germicides in milk, by A. S. DuBois and D. D. Dibblee, Onyx Oil and Chemical Company.
- 6.- Fungus deterioration testing. A chemist's contribution, by J. M. Marshall, Advance Solvents and Chemical Corporation.
- 7.- Antifungal action of 2,3-dichloro-naphthoquinone and its reversal by vitamin K, by D. W. Wooley, Rockefeller Institute for Medical Research.
- 8.- Further studies on the PABA-resistant sulfonamides: the sulfanilylanilides, by G. R. Goetchius and C. A. Lawrence, Winthrop Chemical Company.
- 9.- A micro-plate method for penicillin assay, by Edith Jackson, American Cyanamid Company.
- 10.- A method for restoring and maintaining the phenol resistance of certain strains of Staphylococcus aureus, by Thomas Grubb and Marguerite Edwards, Vick Chemical Company.
- 11.- Toxicity of germicides, by Louis Barail, United States Testing Company.
- 12.- Influence of synthetic estrogen on experimental infections in animals, by E. W. Blanchard, B. Heinemann, and R. B. Stebbins, Schiefflin and Company.
- 13.- Heat-labile somatic antigens of the Shigellae, by A. J. Weil and M. M. Binder, Lederle Laboratories, Incorporated.
- 14.- The white laboratory rat: a host for human throat inclusion bodies, by Jean Broadhurst, Columbia University (emeritus).
- 15.- The significance of type specific meningococcic agglutinins in human serums, by Carolyn Falk and Emanuel Appelbaum, Laboratories of the New York City Department of Health.
- 16.- Experimental inflammations of the heart, by Ward MacNeal, Anne Blevins and Alice Slavkin, New York Post-Graduate Medical School.
- 17.- Inactivation of viruses, by Katherine Wardell, Helen Scanlon, and Ward MacNeal (v.s.).
- 18.- Conjoined action of antibiotics, by Louise Filak, Anne Blevins, and Ward MacNeal (v.s.).
- 19.- Antigenicity studies of gaseous gangrene toxoids, by A. M. Webb, F. L. Clapp, I. S. Danielson, and C. H. Parsons, Lederle Laboratories, Incorporated.
- 20.- Diphtheria toxoid, by Victor Ross, Columbia University, and F. L. Clapp and Bertha Schimpf, Lederle Laboratories, Incorporated.
- 21.- Observations on early skin reactions to tuberculin, by Janet McCarter, Columbia University.
- 22.- A single culture medium for selective isolation of plasma-coagulating staphylococci and for improved testing of chromogenesis, plasma-coagulation, mannitol-fermentation, and the Stone reaction, by George Chapman, Clinical Research Laboratory.

At the dinner meeting, a symposium on antibiotics, as follows:

- 23.- Antibiotics from the Basidiomycetes, by W. J. Robbins, Botanical Garden.

- 24.- Antibiotics from the Aspergilli and the Penicillia, by Charles Thom, Port Jefferson, N.Y. (U.S. Dep't Agriculture, Collaborator)

Central New York Branch (I.C. Gunsalus, Secretary-Treasurer)

The fiftieth semi-annual meeting of the Central New York Branch was held in Geneva, December 1. Eight papers were presented and Pijper's darkfield movies of bacteriophage attacking the typhoid bacillus were shown.

Eastern New York Branch (Myrtle Shaw, Secretary-Treasurer)

Officers for 1946 were elected at the Fall Meeting, held November 30, in Albany at the Division of Laboratories and Research, as follows: R. H. Luce, Chairman; Anne Bahlke, Vice Chairman; Sophia M. Cohen, Secretary-Treasurer; C. A. Lawrence, Councilor; H. W. Lyall, Councilor to Parent Society. Program:

- 1.- The effects of quinine on saurian malarial parasites, by P. E. Thompson, Bassett Hospital, Cooperstown.
- 2.- Limiting values for antibody: antigen ratio in the combination of diphtheria toxin with split antitoxic pseudoglobulin, by Jaques Bourdillon, Division of Laboratories and Research, Albany.
- 3.- Use of moving averages and interpolation to estimate median effective dose, by W. R. Thompson, Division of Laboratories and Research, Albany.
- 4.- Outbreaks of atypical pneumonia due to a rickettsia, by Irving Gordon, Army Epidemiological Board.

Eastern Pennsylvania Chapter (Harry E. Morton, Secretary-Treasurer)

The following officers for 1946 are announced: Harry E. Morton, President; Amedeo Bondi, Jr., Secretary-Treasurer; William F. Verwey, Councilor; James Harrison, Councilor's alternate. The 193d meeting, November 27:

- 1.- Chick embryo technic for intravenous and chemotherapeutic studies, by H. F. Lee, Abram Stavitsky, and M. P. Lee, University of Pennsylvania and the Philadelphia Childrens' Hospital.
- 2.- The distribution and immunological properties of the antigens of epidemic typhus vaccine, by L. A. Chambers, S. S. Cohen, and J. R. Clawson (v.s.)
- 3.- The chemical composition of rickettsia, by S. S. Cohen, L. A. Chambers, and J. R. Clawson (v.s.)

Texas Branch (Charles E. Lankford, Secretary)

Fall Meeting of the Texas Branch was held November 24 at Galveston. The following new officers for 1945-1946 assumed office: MacDonald Fulton, President; V. T. Schuhardt, Vice President; Mrs. E. B. M. Cook, Treasurer; Charles Lankford, Secretary; K. L. Burdon, Councilor. Program:

- 1.- The supplementary requirements of Bacto proteose no. 3-hemoglobin agar for detection of the gonococcus, by C. E. Lankford and P. K. Skaggs, University of Texas Medical School.
- 2.- Bacteriology of a collection of Shigellae typed by Weil's method, by MacDonald Fulton, University of Texas Medical School, and S. F. Curtis, Texas State Department of Health.
- 3.- Passive anaphylaxis in mice without an incubation period, by K. L. Burdon, Baylor University College of Medicine.
- 4.- The "Rh" factor: a report of an anamnestic reaction, by Major W. F. Hettler, Sn.C., Fort Sam Houston.

- 5.- Skin tests with an organism cultivated from granuloma inguinale, by Robert Wise and Mary Slattery, University of Texas Medical School.
- 6.- 1943-1945 survey on encephalitis in Texas, by J. V. Irons, Oleta Beck, Lill Skinner and Thelma Sullivan, Laboratories, State Department of Health.
- 7.- Observations on the effect of anesthesia on the course of experimental neurotropic virus infections, by Christine Zarofonetis, Edward Sulkin, and Andres Goth, Southwestern Medical College.
- 8.- Preliminary report. The transmission of murine typhus by Echinolaelaps echidninus (Borlese), by Major Morris Pollard, V. C., Fort Sam Houston.
- 9.- A note on serological reactions with typhus antigens, by Major Morris Pollard, V.C. (v.s.)
- 10.- Preliminary survey of typhus in the house mouse, Mus musculus, by Oleta Beck, Lill Skinner, and Thelma Sullivan, Laboratories, State Department of Health.
- 11.- Chemotherapy of malaria, by Wendell Gingrich, University of Texas Medical School.
- 12.- Observations on the rate of growth of Litomosoides carinii, the filaria of the Texas cotton rat, by J. A. Scott, University of Texas Medical School.
- 13.- Fungi in Otomycosis, by Mildred John, University of Texas Medical School.
- 14.- Serological study of some Aspergilli, by W. B. Sharp, University of Texas Medical School.
- 15.- Studies on the cultivation of Treponema carateum of mal de pinto in Mexico, by C. M. Pomerat, University of Texas Medical School.
- 16.- Relapse after treatment in spirochetel relapsing fever, by V. T. Schuhardt and Emmarie Hemphill, University of Texas.
- 17.- Penicillin sensitivity and morphology of the Reiter strain of Treponema pallidum after cultivation in media containing penicillin, by T. Tung and C. N. Frazier, University of Texas Medical School.
- 18.- Miscellaneous observations with penicillin, by Lt-Col. Max Levine, Sn.C., and Col. A. R. Thomas, Jr., M. C., Fort Sam Houston.
- 19.- Synergistic effect of nicotinamide upon penicillin action, by E. N. Frieden, University of Texas Medical Branch.
- 20.- A new antibiotic produced by Bacillus subtilis active against pathogenic fungi, by E. A. Johnson, Baylor University College of Medicine.
- 21.- Water borne diseases, water purification and bacteriological control. Some facts and fallacies, by Lt.-Col. Max Levine, Sn.C., Fort Sam Houston (Special evening address).

Washington, D.C., Branch (W. Bohrer, Secretary-Treasurer)

The one hundred and forty-fifth meeting, October 23:

- 1.- A comparison of the in vitro susceptibility of the gonococcus to regular penicillin and penicillin "X", by Capt. M. J. Romansky, M.C., Walter Reed General Hospital.
- 2.- Factors influencing the anaerobic production of gas by Bacillus subtilis, by N. R. Smith and Marie Wenzel, Bureau of Plant Industry, Soils, and Agricultural Engineering.
- 3.- Therapy of experimental Tsutsugamushi disease (Scrub typhus), by Lt. (j.g.) W. F. McLimans and Lt. C. W. Grant, Naval Medical Research Institute.

The one hundred and forty-sixth meeting, November 20:

- 1.- The ultra-violet sterilization of sugar for use in canning non-acid foods, by C. M. Merrill and C. C. Williams, National Canners Association, and Capt. H. B. Rogers, Jr., QMC, Subsistence Research and Development Laboratory, Chicago.
- 2.- Some problems in the study of lactose utilization by lactose fermenting yeasts, by M. Rogosa, Bureau of Dairy Industry.
- 3.- Experimental vaccines against tularemia, by C. L. Larson, National Institute of Health.

PLEASE NOTE

We wish to call to the attention of new members the fact that while THE JOURNAL OF BACTERIOLOGY and BACTERIOLOGICAL REVIEWS are appearing regularly they are chronologically about three months behind. Not all 1945 issues have yet appeared. Since new members are entered for 1946 it is quite likely that it may be March, 1946 before they receive our publications. This office is happy to receive the questions of our members about missing journals, addresses, and so on, but much time will be saved all of us if allowance is made for our publication schedule before writing in.

Members are reminded that material for BACTERIOLOGICAL REVIEWS is not solicited. Editor Barnett Cohen will welcome properly prepared reviews on timely subjects. Please consult past reviews for form and content.

Extra copies of the June, 1945 REVIEW by the Petersons on "Relation of Bacteria to vitamins and other growth factors" were made available for purchase from the Secretary-Treasurer at 40¢ each or five for \$1.50. More than 150 of these have been sold. Orders can still be filled.

BOOK REVIEWS

STATISTICAL ANALYSIS IN BIOLOGY. K. Mather. Interscience Publishers, Incorporated, New York (1943) 247 pages. \$4.50.

This book is an introduction to statistical methods for biological workers. The statistical techniques discussed are well illustrated by problems for which the arithmetic is worked out in detail. Many of the examples are taken from the field of Genetics which is to be expected since Dr. Mather is primarily a Geneticist. This in no way distracts from the book.

This book first stresses the relation between sample and population followed by a discussion of probability and significance. The author then discusses the important statistical distributions, the test of significance and the interrelations between different tests. Succeeding chapters discuss the analysis of variance, the planning of experiments, correlation and regression and the analyses of frequency data. He concludes with a chapter on estimation and information. An excellent glossary of terms is given followed by tables of the normal deviate, t , χ^2 , variance ratio at .20, .05, .01, and .001 probability points.

Mather presents considerably more proof based on algebra and elementary calculus than is to be found in most books on applications of statistical methods. This will be welcomed by many biologists. In his discussion of the analysis of variance Mather starts out with individual degrees of freedom and shows how they may be built up into the analysis of variance which is the reverse to the procedure usually followed. Mather uses N in place of n for degrees of freedom which is the reverse to the usual convention. Many of his calculations are carried out to more decimal places than warranted by the data. No material is presented on topics such as transformations, X^2 test of homogeneity test for normality and the estimation of missing data. However, Mather discusses the following subjects, polynomial coefficients, the discriminant function, method of maximum likelihood and limitations of inefficient statistics, which are not included in many books on applied statistics.-- James H. Torrie, Associate Professor of Agronomy, University of Wisconsin.

ADVANCES IN ENZYMOLOGY. Volume V. F. F. Nord and C. H. Werkman. Interscience Publishers, Incorporated, New York (1945). \$5.50.

According to the publisher's notice, "Wartime conditions have prevented our receiving all the manuscripts originally scheduled for this collection." The same conditions may also be responsible for other aspects which make this volume the least satisfactory of the series. The nature of the topics and their treatment is such that about one half of the book seems distinctly below par.

Pirie's paper is a well-organized account of the physical and chemical properties of two types of plant viruses. The critical appraisal of the factual information has been done with great care and the presentation is excellent. However, the scope is quite narrow.

The essay on blood coagulation (Chargaff) deals adequately with a difficult subject; it provides an informed background of the kind one likes to associate with a review article, and forms a sound basis for future work.

So little appears known about the formation of amines from amino acids by mammalian tissues that it is, at present, hardly a fitting subject for a review. Blaschko's contribution would have gained much in substance and depth if other types of amino acid decompositions had been considered, and the least one could have expected would have included an evaluation of the scanty information in the light of recent work on the production of amines by bacteria.

One of the redeeming features of the volume is the masterly article by Leibowitz and Hestrin on alcoholic fermentation of the oligosaccharides. This topic was eminently suited for a general treatment, and the authors have made the most of their opportunity. By linking the studies on alcoholic fermentation with developments in understanding of other aspects of carbohydrate metabolism, they have written a truly scientific document which traces the modifications of a once satisfactory working hypothesis through its obstacles to a currently more adequate generalized concept. This paper should be required reading for any one interested in sugar metabolism.

By contrast, Stotz' review on pyruvate metabolism is disappointing. The subject has been dealt with a number of times in recent years, and more satisfactorily. The few important new advances, chiefly those following from

Lipmann's studies on the oxidative decarboxylation of pyruvate, are rather summarily mentioned, without an attempt at a more integrated appraisal. The erroneous statement (p. 144) that ATP is involved directly in the synthesis of acetyl choline indicates that this shortcoming may have to be ascribed to a lack of appreciation of the fundamental principles involved.

Admittedly the progress of science is slow, and scientists will readily subscribe to von Bayer's statement on the slowness of progress towards completeness, used as a motto for the paper by Nord and Mull. But this is not a valid excuse for treating a number of rather trivial studies as the subject for a review. Much of it deals, of course, with the finding of pyruvic acid as an intermediate product in the sugar metabolism of *Fusaria*, a concept with which, in a far more general sense, biochemists have been familiar for more than 30 years. As on some previous occasions, the account of the work is garbled and pretentious. Perhaps this paper was inserted to fill the gap resulting from the failure of solicited contributions to reach the publishers.

On the other hand, the paper by Schlenk, a critical and carefully written account of enzymatic reactions involving nicotinamide and related compounds, represents another important and timely review in which the available information has been nicely collated after having been fully assimilated.

The last article by Smythe (Some enzyme reactions on sulfur compounds), while sound and readable, suffers from the paucity of experimental work to be reviewed. It is probable that in a more "normal" volume this would not have been as apparent; it seems fully understandable that the selection of appropriate topics for reviews may have presented particular difficulties this last year.--C. B. van Niel

A MANUAL OF THE ASPERGILLI. Charles Thom and Kenneth B. Raper. 373 + ix p. in 25 chapters, 76 fig., 7 color plates, topical and general bibliography. The Williams and Wilkins Company, Baltimore. 1945. \$7.

Someone has said that taxonomy is a nuisance, but like grammar, a necessary one---for a few specialists. How wrong he would be, if all manuals could be like the new Thom and Raper "Manual of the Aspergilli." The "few specialists" will welcome it for they will be quick to see its merits, but the real audience will be the many who have never claimed to be mycologists and yet now find themselves working with molds. If they can be helped even to a proper respect for the Aspergilli, the book will have done enormous good.

Part I, consisting of 6 chapters, should be read carefully for it is based upon the authors' scholarly knowledge of the aspergilli as a group. It traces the discovery and early history, gives a concise generic definition. It then carefully describes morphology and by excellent photographs and drawings makes clear the essential parts to look for and the range of morphological difference to expect in different members of the group. That this range of morphology may be affected by the purity of culture, nutrients, and cultural conditions may come as a surprise to some readers. Hence the next chapters on Preservation of Cultures and Variation are very much in order. The discussion on variation could be read with profit by any microbiologist; it leaves one with some faith in the species concept but also with a certain latitude. And when one reflects that it is Dr. Thom speaking from his own philosophy, one reads the chapter again.

Part II, the Manual proper, needs no comment except that it is conveniently arranged. The trick of presenting the inter-relations of groups in graphic form is a good one. Details concerning each group require 14 chapters, all organized on the same plan so that one can finger through and compare what is said about each

group on such topics as Outstanding Characters, Occurrence and Economic Importance, Pathogenicity and Antibiotic Activity, if any.

A Topical Bibliography as well as a General Bibliography, a Check List of Species and Genera (with proper citations for the professed taxonomist) and what the authors call Accepted Species, Varieties and Mutations (or the general user of the book) comprise Part III, the Reference Material.

In closing one must congratulate the authors on the photographs, both black/white and colored, for they are truly remarkable. --Elizabeth McCoy.

PULMONARY EDEMA AND INFLAMMATION. Cecil K. Drinker. Harvard University Press, Cambridge, Massachusetts (1945). 104 pages. \$2.50.

The pathologist or bacteriologist, attracted by the word "inflammation" in the title may be disappointed after he has finished reading this small volume, because he has found next to nothing about pulmonary inflammation in it, but he will have learned a good deal about the mechanism of pulmonary oedema. The author, who is the well known professor of physiology at the Harvard School of Public Health, states that it was not even his purpose to present "an over-all picture of the causes of pulmonary edema" but "rather, the part played in its causation by changes in the permeability of the lung capillary endothelium, and particularly the part played by anoxia in effecting these changes."

The book consists of five chapters, the first four of which represent lectures delivered at the Bowman Gray School of Medicine, Wake Forest College, Winston-Salem, N.C. The first chapter deals predominantly with a review of the anatomy of lung structure, paying considerable attention to the alveolar pores as paths of collateral respiration and, according to Loosli, as possible paths for interlobular extension of infection. The lymphatics and the method of obtaining lymph, representing drainage from the heart and lungs, also receive special attention. The relative role played by increase in pressure in the pulmonary capillaries, anoxia, and increased permeability resulting from injury to the capillaries is discussed in the second chapter. This chapter contains also a description of the experimental production of pulmonary oedema by a new compound allied to thiourea, which specifically injures the pulmonary capillaries, but not those elsewhere in the body, and the demonstration that fluid appears in the air passages when the quantity becomes too large to be drained off by the lymphatics. The third chapter deals with the role of breathing movements in the causation of pulmonary edema with special reference to the effects of poor pulmonary circulation and adequate lymphatic drainage resulting from abnormal breathing or posture. In discussing preventive and therapeutic measures in the fourth chapter, the author stresses the importance of fighting anoxia early by the proper administration of 100% oxygen--for best results not when the patient is cyanotic or presents unmistakable signs of pulmonary oedema, but before the physician is sure it is needed. The last chapter contains an analysis of the principles underlying effective artificial respiration and the extent to which different methods fulfill the basic requirements.

The bacteriologist or experimental pathologist is especially interested in the substances and agents which attack the bronchioles, respiratory bronchioles, alveolar apothelium and endothelium of the pulmonary capillaries and the nature of the changes which are responsible for increased capillary permeability, formation of exudate instead of transudate and the variety of other manifestations he sees in pulmonary inflammation. Dr. Drinker, the physiologist, does not deal with any of these, but picks up after the injury has occurred with the mechanics of what follows afterwards. Thus the pathologist may learn from him that the mere occlusion of the very small bronchioles or respiratory bronchioles, such as occurs in certain virus infections as well as in atypical pneumonia, by keeping air out of the alveoli of the corresponding unit of lung tissue, can lead to leakage through the lung capillary endothelium. --Albert B. Sabin.

SOCIETY OF AMERICAN BACTERIOLOGISTS

New Members

October 1 through December 31

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 Balterman, Dexter L., Schenley Laboratories, Penicillin Plant, Lawrenceburg, Ind.
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 Fitzgerald, John T., Mercy Hospital, Portland, 3, Maine
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 Heller, Leon, Dept. of Cancer Research, McArdle Mem. Lab., Univ. of Wis., Madison, Wis.
 Henry, Dr. Jane E., Dept. of Bacteriology, Med. Sch., Univ. of Penn., Philadelphia 4
 Hift, Helen, 362 Noyes Laboratories, University of Illinois, Urbana, Illinois
 Hilleman, Dr. Maurice R., Virus Lab., E.R. Squibb and Sons, New Brunswick, N.J.
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 Winter, Dr. A. R., Poultry Department, Ohio State Univ., Columbus, 10, Ohio

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